

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) An isolated antibody that binds specifically to a polypeptide comprising an ubiquitination-regulating domain, or a functional fragment thereof, of a human TSG101 protein comprising the amino acid sequence recited in SEQ ID NO:1, wherein said antibody binds specifically to the ubiquitination-regulating domain, or functional fragment thereof, of said polypeptide.

2-3. (Canceled).

4. (Previously Amended) The antibody of Claim 1, wherein said ubiquitination-regulating domain comprises amino acid residues 50-140 of said human TSG101 protein.

5. (Previously Amended) The antibody of Claim 1, wherein said ubiquitination-regulating domain comprises amino acid residues 1-140 of said human TSG101 protein.

6. (Previously Amended) The antibody of Claim 1, wherein said ubiquitination-regulating domain comprises amino acid residues 140-250 of said human TSG101 protein.

7. (Withdrawn) A method of producing an antibody that binds specifically to an ubiquitination-regulating domain, comprising raising said antibody against a polypeptide comprising said ubiquitination-regulating domain.

8. (Withdrawn) The method of Claim 7, wherein said ubiquitination-regulating domain is a ubiquitination-regulating domain, or a functional fragment thereof, of a TSG101 protein.

9. (Withdrawn) The method of Claim 8, wherein said TSG101 protein is a human TSG101 protein.

10. (Withdrawn) The method of Claim 9, wherein said ubiquitination-regulating domain comprises amino acid residues 50-140 of said human TSG101 protein.

11. (Withdrawn) The method of Claim 8, wherein said ubiquitination-regulating domain comprises amino acid residues 1-140 of said human TSG101 protein.

12. (Withdrawn) The method of Claim 9, wherein said ubiquitination-regulating domain comprises amino acid residues 140-250 of said human TSG101 protein.

13. (Withdrawn) A method of treating a condition in a subject, said condition resulting from a change in a level of MDM2 protein in cells of said subject, said method comprising administering to said subject a therapeutically effective amount of an agent, said agent comprising an ubiquitination-regulating domain.

14. (Withdrawn) A method of treating a condition in a subject, said condition resulting from a change in a level of a TSG101 protein in cells of said subject, said method comprising administering to said subject a therapeutically effective amount of an agent, said agent modulating the interaction of said TSG101 protein with MDM2.

15. (Withdrawn) A method for treatment of a proliferative disease in a subject comprising:

monitoring the subject for a level of p53; and

treating the subject with an agent so as to maintain said level of p53 within a target range, wherein said agent comprises an ubiquitination-regulating domain.

16. (Withdrawn) A method for treatment of a proliferative disease in a subject comprising:

monitoring the subject for a level of TSG101; and

treating a subject with an agent so as to maintain said level of TSG101 within a target range, wherein said agent modulates the interaction of said TSG101 with MDM2.

17-21. (Canceled).

22. (Withdrawn) A method for treating a proliferative disease in a subject, said method comprising administering to said subject a therapeutically effective amount of an agent, said agent modulating the interaction of a TSG101 protein with MDM2.

23. (Withdrawn) A cell comprising a polynucleotide encoding an ubiquitination-regulating domain operationally linked to a regulatory sequence such that said cell expresses said ubiquitination-regulating domain.

24. (Withdrawn) A cell comprising (i) a polynucleotide encoding an ubiquitination-regulating domain operationally linked to a regulatory sequence; and (ii) a polynucleotide encoding MDM2 protein operationally linked to a regulatory sequence, such that said cell expresses said ubiquitination-regulating domain and said MDM2 protein.

25. (Withdrawn) A cell comprising (i) a polynucleotide encoding an ubiquitination-regulating domain operationally linked to a regulatory sequence; (ii) a polynucleotide encoding MDM2 protein operationally linked to a regulatory sequence; and (iii) a polynucleotide encoding p53 protein operationally linked to a regulatory sequence, such that said cell expresses said ubiquitination-regulating domain, said MDM2 protein, and said p53 protein.

26-30. (Canceled).

31. (Withdrawn) A method of identifying an agent that modulates the interaction of a TSG101 protein with MDM2, comprising screening candidate agents using a screening assay comprising a cell expressing MDM2 and a polypeptide comprising an ubiquitination-regulating domain, or a functional fragment thereof, of said TSG101 protein.

32. (Withdrawn) A method of identifying an agent that is capable of modulating the interaction of a TSG101 protein with MDM2, comprising:

contacting a first cell expressing MDM2 and a polypeptide comprising an ubiquitination-regulating domain, or a functional fragment thereof, of said TSG101 protein with said agent and measuring MDM2 level in said first cell;

contacting a second cell expressing MDM2 but not an ubiquitination-regulating domain, or a functional fragment thereof, of said TSG101 protein, with said agent and measuring MDM2 level in said second cell; and

comparing MDM2 levels measured in (a) and (b),

wherein a difference in MDM2 levels compared in step © identified said agent as capable of modulating the interaction of the TSG101 protein with MDM2.

33-36. (Canceled).

37. (Withdrawn) A method of modulating a level of MDM2 in a cell, comprising contacting said cell with a polypeptide or derivative thereof that comprises a polypeptide comprising a polypeptide comprising an ubiquitination-regulating domain.

38. (Withdrawn) A method of modulating a level of p53 in a cell, comprising contacting said cell with a polypeptide or derivative thereof that comprises a polypeptide comprising an ubiquitination-regulating domain.

39. (Withdrawn) A method of modulating a level of TSG101 in a cell, comprising contacting said cell with an agent that is capable of modulating the interaction of a TSG101 protein with MDM2.

40. (Withdrawn) A method of modulating a level of MDM2 in a cell, comprising contacting said cell with an agent that is capable of modulating the interaction of a TSG101 protein with MDM2.

41. (Withdrawn) A method of modulating a level of p53 in a cell, comprising contacting said cell with an agent that is capable of modulating the interaction of a TSG101 protein with MDM2.

42. (Withdrawn) A method for screening for a cellular protein that interacts with an ubiquitination-regulating domain, comprising identifying a cellular protein that binds said ubiquitination-regulating domain.

43. (Previously Amended) A pharmaceutical composition for treatment of diseases involving TSG101-mediated ubiquitination, comprising:

an antibody that binds specifically to an ubiquitination-regulating domain, or a functional fragment thereof, of a human TSG101 protein comprising the amino acid sequence recited in SEQ ID NO:1; and

a pharmaceutically acceptable excipient.

44. (Withdrawn) A method for treatment of diseases involving TSG101-mediated ubiquitination, said method comprising:

administering to a subject suffering from a disease involving TSG101-mediated ubiquitination an effective amount of the pharmaceutical composition of Claim 43.

45. (Withdrawn) The method of Claim 44, wherein the diseases involving TSG101-mediated ubiquitination comprise proliferative diseases, neurodegenerative diseases, autoimmune diseases, and developmental abnormalities.